

Serial Number 09/910,232  
Art Unit 1773  
Docket No. 00/121 MFE

extension of the current application beyond the expiration of either one of the above applications, assuming either one issues as a patent. Because neither of these applications have currently issued as a patent, the rejection is a provisional obviousness-type double patenting rejection. Should neither patent issue as a patent, the terminal disclaimer would then not be necessary. However, the undersigned sees no reason why the above two US patent applications would not issue as a patent.

On page 3 of the Office Action, the Examiner rejected Claims 1 – 15 under the judicially created doctrine of obviousness-type double patenting in view of the claims of US Application No. 09/274,781 to Peiffer et al. Because this application has yet to issue as a patent, this rejection is a provisional rejection. Further remarks concerning this second rejection will be set forth later.

On page 4, paragraph 4 of the Office Action, the Examiner rejected Claims 1 – 15 under the judicially created doctrine of obviousness-type double patenting in view of the claims of US Patent No. 6,391,410 or US Patent No. 6,149,995, both directed to Peiffer et al. Further comments concerning this third rejection will be set forth later.

On page 4, paragraph 5 of the Office Action, the Examiner rejected Claims 1 – 15 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of US Patent 6,054,212 to Peiffer et al. In view of similarity between this rejection and other rejections, further comments on this fourth rejection will be set forth below.

On page 6, paragraph 6 of the Office Action, the Examiner has rejected Claims 1 – 15 under 35 U.S.C. 103(a) as being unpatentable over:

- (a) US Patent 6,054,212; or
- (b) European Patent Applications 0878298 or 0878297; or
- (c) European Patent Applications 0945256, 0945259, 0945261, 0945262, or 0945263.

Serial Number 09/910,232

Art Unit 1773

Docket No. 00/121 MFF

The Examiner states that references (a) and (b) disclose a multilayer polyester film. The Examiner notes that these references do not explicitly disclose the recited interlayer adhesion. The Examiner relies on those European Patent Applications set forth in (c) as disclosing a multilayer polyester film but also notes that these references do not explicitly disclose the recited interlayer adhesion. The Examiner concludes that it would have been obvious to a person skilled in the art at the time the invention was made to increase or maximize the interlayer adhesion in the films disclosed in the above cited references in order to prevent delamination. This fifth rejection is traversed for the reasons set forth below.

On page 7, paragraph 7 the Examiner rejects Claims 1 – 15 under 35 U.S.C. 103 as being unpatentable over US Patent 6,149,995. The Examiner notes that this patent does not explicitly disclose the recited interlayer adhesion but states that it would be obvious to those skilled in the art to increase or maximize the inner layer adhesion in the films in order to prevent delamination. This sixth rejection is respectfully traversed for the reasons set forth below.

The following remarks apply to the rejections 2 through 6 set forth above. Each of the pieces of prior art cited by the Examiner are all prior art patents or patent applications assigned to Mitsubishi Polyester Film GmbH and have at least one common inventor, i.e. Herbert Peiffer. There is great similarity in these applications, nevertheless, there are differences also.

Claim 1 has now been amended to state that the outer layer A contains ethylene naphthalate units in a range of from 91 to 97% by weight. This range being recited in originally filed claim 2 is the reason why claim 2 has now been deleted in its entirety.

It is known that PEN film has better barrier properties than PET film. When making a barrier film, it is desirable to have a PEN layer just thick enough to yield the barrier properties desired. PEN is an expensive material. Thus a laminate with PET film is much more affordable. PEN film, however, delaminates when co-extruded with PET film. This

Serial Number 09/910,232

Art Unit 1773

Docket No. 00/121 MFF

problem was recognized by the present inventors. Once the problem of the incompatibility in delamination between PET and PEN films was recognized, prior art films such as those disclosed in rejection 2, 3, 4, 5, and 6, where Peiffer is a co-inventor, were re-examined and noted to contain good adhesion. None of the prior art references set forth in rejections 2 - 6 recognizes the delamination problem. Delamination problem came to light with the present invention. The Examiner's conclusion in rejections 5 and 6, for example, that a person skilled in the art, at the time the invention was made, would seek to increase or maximize the inner layer adhesion in order to prevent delamination is in error. There was no delamination in the prior art patents and thus there was no problem as suggested by the Examiner nor a need to increase or maximize the inner layer adhesion since the adhesion between the PEN/PET outer layer with a base layer of PET was more than adequate.

In order to maximize the barrier properties the present invention sought to maximize the PEN content of the barrier layer. As stated previously, the present invention had delamination problems when the outer layer was 100% PEN. In order to avoid delamination, the claims state that the outer layer must contain at least 3 and up to 9% PET (with the remaining portion of the outer layer containing 91 - 97% PEN). Laminate films in the range of the present invention give the maximum barrier properties, and exhibit no delamination. Furthermore, such films are most economical, when compared to other barrier films, in that the outer layer comprises no more than 25% by weight of the total film laminate. This was not known, taught, or suggested in any of the references set forth in rejections 2 - 6. In particular, the prior art references such as US Patent 6,391,410 and 6,149,995 to Peiffer et al. discuss the outer layer comprising up to 60% by weight ethylene terephthalate units. When such a high PET weight exists in the outer layer, there was no delamination problem.

Applicant submits herewith a two-month extension. Please charge to Deposit Account 502193 the fee of \$110.00 for the Terminal Disclaimer and the fee of \$400.00 for the two-month extension or whatever fee is currently prescribed for each.

Serial Number 09/910,232

Art Unit 1773

Docket No. 00/121 MFE

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made".

In view of the amendment to Claim 1, and in view of the terminal disclaimer, and in view of these remarks, it is submitted that the present application is now in condition for allowance and such is earnestly solicited.

Respectfully submitted,



Klaus Schweitzer  
(See attached Limited Recognition Form)  
ProPat, LLC  
2912 Crosby Road  
Charlotte, North Carolina 28211  
Telephone: (704) 365-4881  
Fax: (704) 365-4851

Attorney's Docket No. 00/121 MFE

Serial Number 09/910,232

Art Unit 1773

Docket No. 00/121 MFE

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

In the Claims:

Claim 1 has been amended as follows:

1. (Amended) A transparent, biaxially oriented polyester film with a base layer B, at least 80% by weight of which is composed of a thermoplastic polyester, and with at least one outer layer A, wherein:

the outer layer A is composed of a copolymer or of a mixture of homopolymers and copolymers, which contains ethylene 2,6-naphthalate units in a range of from ~~90 to 98%~~ 91 to 97% by weight and up to 10% by weight of ethylene terephthalate units, and/or units derived from cycloaliphatic or aromatic diols and/or dicarboxylic acids;

the thickness of the outer layer A is more than 0.7  $\mu\text{m}$  and makes up less than 25% by weight of the total film, and

the  $T_g2$  value of the polyester film is above the  $T_g2$  value of the polyester for the base layer B but below the  $T_g2$  value of the polyester for the outer layer A.

Claim 2 has been cancelled.

I:\wpnet\ProPat\3576 00121 MFE\AmdOA 12-12-02.doc